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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/546,971

Applicant(s)

SPRUIT ET AL.

Examiner

Jorge L. Ortiz-Criado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 23-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 15-17 and 23-31 is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 7 and 9-10 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 2, 4, 6 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5, 7, 9-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagara et al. U.S. Patent No. 6,147,957 in view of Tanaka et al. U.S. Patent No. 5,881,037.

Regarding claim 1, Nagara et al. discloses a method of recording information in units on a record carrier having a track for consecutively recording the information units at addressable locations (See col. 1, lines 47-57; col. 4, lines 29-46; Figs. 2,3,7,13),

the information being represented in the track by series of marks of different runlengths between a minimum runlength and a maximum runlength ("i.e. 3T and 11T") and synchronizing patterns of marks which patterns do not occur in the series of marks (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7,13), said method comprising:

(a) encoding at least one information unit into a modulated signal comprising signal elements corresponding to said marks (See col. 4, lines 9-12; col. 6, lines 15-29; Fig. 3,5,6,7),

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(b) scanning said track up to a link position before a selected one of said addressable locations (See col. 4, lines 9-51; col. 6, lines 15-29; Fig. 3,5,6,7), and

(c) recording the modulated signal from the link position, characterized in that (See col. 4, lines 9-51; col. 6, lines 15-29; Fig. 3,5,6,7)

(d) the modulated signal is provided at the begin and/or at the end with a link signal element corresponding to a link mark of at most the minimum runlength (3T) (See col. 4, lines 9-51; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Nagara et al. does not expressly disclose wherein the synchronization patterns comprise at least one long mark of at least the maximum runlength.

However this feature is well known in the art as evidenced by Tanaka et al., which discloses synchronization pattern including at least one long mark in the synchronizing pattern; at least one long mark of at least the maximum runlength (See col. 9, line 45 to col. 10 lines 1-67).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to include at least one long mark in the synchronizing pattern, in order to discriminate the synchronization from the other data such as video and/or audio as suggested by Tanaka et al.

Regarding claim 3, a device for recording information in units on a record carrier having a track for consecutively recording the information units at addressable locations (See col. 1, lines 5-57; col. 4, lines 29-46; Figs. 1,2,3,7,13),

the information being represented in the track by series of marks of different runlengths between a minimum runlength and a maximum runlength ("i.e. 3T and 11T) and synchronizing

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patterns of marks, which patterns do not occur in the series of marks (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7,13)

said device comprising encoding means for encoding at least one information unit into a modulated signal comprising signal elements corresponding to said marks (See col. 4, lines 9-12; col. 6, lines 15-29; Fig. 1,3,5,6,7) ,

and recording means for scanning said track up to a link position before a selected one of said addressable locations and recording the modulated signal from the link position (See col. 3 line 31 to col. 4, line 51; Fig. 1),

characterized in that the encoding means are arranged for providing the modulated signal at the begin and/or at the end with a link signal element corresponding to a link mark of at most the minimum runlength (3T) (See col. 4, lines 9-51; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Nagara et al. does not expressly disclose wherein the synchronization patterns comprise at least one long mark of at least the maximum runlength.

However this feature is well known in the art as evidenced by Tanaka et al., which discloses synchronization pattern including at least one long mark in the synchronizing pattern; at least one long mark of at least the maximum runlength (See col. 9, line 45 to col. 10 lines 1-67).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to include at least one long mark in the synchronizing pattern; at a runlength longer than the sum of the maximum runlength and the runlength of the link mark, in order to discriminate the synchronization from the other data such as video and/or audio as suggested by Tanaka et al.

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Regarding claim 5, the combination of Nagara et al. with Tanaka et al. would show synchronization pattern including at least one long mark in the synchronizing pattern; at a runlength longer than the sum of the maximum runlength and the runlength of the link mark (See Tanaka et al. col. 9, line 45 to col. 10 lines 1-67).

Regarding claim 7, the combination of Nagara et al. with Tanaka et al. would show wherein the encoding means comprise means for variably selecting one out of a set of fixed linking sequences that each start with the link signal element followed by further signal elements for recording marks up to the first synchronizing pattern (See Nagara et al col. 4, lines 9-51 ; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7)

substantially half of the linking sequences of the set having an odd number of mark boundaries (See Nagara et al col. 4, lines 9-65; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Regarding claim 9, the combination of Nagara et al. with Tanaka et al. would show wherein the device comprises means for processing or compressing digital or analog input signals such as audio and/or video to units of information (See Nagara et al. col. 4, lines 9-12; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Regarding claim 10, the combination of Nagara et al. with Tanaka et al. would wherein the input signals are audio and/or video signals (see Tanaka et al. Abstract)

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Regarding claim 12, the combination of Nagara et al. with Tanaka et al. would a record carrier produced by the method of claim 1 (See Nagara et al. col. 1, lines 5-57; col. 4, lines 29-46; Figs. 1,2,3,7,13) (See Tanaka et al. col. 9, line 45 to col. 10 lines 1-67)

Regarding claim 13, Nagara et al. discloses a method comprising:

encoding an information unit forming a recording signal of signal elements (See col. 3, lines 15-31; col. 4, lines 9-12; col. 6, lines 15-29; Fig. 3,5,6,7), the recording signal containing:

a linking signal element, a synchronizing pattern of signal elements, and the encoded information unit (See col. 4, lines 9-51; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7);

selecting an addressable location on the track of a record carrier; scanning the track up to a link position before the selected addressable location (See col. 4, lines 9-51; col. 6, lines 15-29; Fig. 3,5,6,7), and

recording the recording signal as marks corresponding to the signal elements and starting at the link position, the marks having different run lengths, the marks representing the information unit having run lengths that vary from a minimum run length to a maximum runlength, the pattern of marks representing the synchronizing pattern not occurring in the marks representing the information unit (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7,13) and

the mark representing the link signal element having a run length of at most the minimum runlength (See col. 4, lines 9-51; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Nagara et al. does not expressly disclose wherein the synchronization patterns including a long mark of at least the maximum runlength.

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However this feature is well known in the art as evidenced by Tanaka et al., which discloses synchronization pattern including at least one long mark in the synchronizing pattern; at least one long mark of at least the maximum runlength (See col. 9, line 45 to col. 10 lines 1-67).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to include at least one long mark in the synchronizing pattern; at a runlength longer than the sum of the maximum runlength and the runlength of the link mark, in order to discriminate the synchronization from the other data such as video and/or audio as suggested by Tanaka et al.

Regarding claim 14, Nagara et al. discloses a recording device comprising:

encoding means for encoding at least one information unit, and for variably selecting, one out of a set of fixed linking sequences that each start with a link signal element followed by further signal elements (See col. 4, lines 9-12; col. 6, lines 15-29; Fig. 3,5,6,7), and

for providing a recording signal of signal elements, the recording signal containing the selected linking sequence, a synchronizing pattern, and the encoded information unit (See col. 4, lines 9-51; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7)and

recording means for selecting an addressable location in the track of a record carrier, and

for scanning said track up to a link position before the selected addressable location and for recording the recording signal starting at the link position, the marks having different run lengths, the marks representing the information unit having run lengths that vary from a minimum run length to a maximum runlength, the pattern of marks representing the

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synchronizing pattern not occurring in the marks representing the information unit (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7,13) and

the mark representing the link signal element having a run length of at most the minimum runlength (See col. 4, lines 9-51; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Nagara et al. does not expressly disclose wherein the synchronization patterns including a long mark of at least the maximum runlength.

However this feature is well known in the art as evidenced by Tanaka et al., which discloses synchronization pattern including at least one long mark in the synchronizing pattern; at least one long mark of at least the maximum runlength (See col. 9, line 45 to col. 10 lines 1-67).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to include at least one long mark in the synchronizing pattern, in order to discriminate the synchronization from the other data such as video and/or audio as suggested by Tanaka et al.

Allowable Subject Matter

3. Claims 2,4,6 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In regard to claims 2, 4, 6, 11, 15, the prior art of record fails to teach or suggest specifically wherein the link signal element corresponds to a link mark shorter the minimum runlength.

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4. Claims 8, 15, 16, 17 and 23-31 are allowed.

The following is an examiner's statement of reasons for allowance:

In regard to claims 8, 16, 17, the prior art of record fails to teach either alone or in combination specifically wherein a linking sequence have a fixed length of 8 channel bits and the set of fixed linking sequence comprises 10100000 and 10100100, or 10010000 and 10010010.

In regard to claims 23, 24, 25 and 26, the prior art of record fails to teach either alone or in combination wherein the link signal element is part of a link section specifically having a total length substantially less than the length of a frame.

In regard to claims 27-29, the prior art of record fails to teach or suggest either alone or in combination wherein the link information units are organized into ECC units and specifically recording the link signal element at the end of the last C1 code word of the previous ECC unit.

In regard to claim 30-31, the prior art of record fails to teach or suggest either alone or in combination wherein the link position is placed 8 channel bits before a boundary between ECC blocks.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments filed 12/10/2004 have been fully considered but they are not persuasive.

In regard to claims 1,3,13 and 14 Applicants argue that Nagara's **linking section**, which is a linking element does not correspond to a **link mark**. And, in where an ordinary skill in the art would NOT call a **mark** within a **linking section** a "**link mark**"

The Examiner cannot concur because as Applicants has acknowledged that Nagara discloses a linking section corresponding to a link signal element. Furthermore, within the **LINKING** section of Nagara a **LINK** signal element corresponding to a **LINK MARK** of at most the minimum runlength (i.e. 3T), is provided.

The claims are given the broadest reasonable interpretation consistent with the specification. See *In re Morris*, 127 F.3d 1048, 44 USPQ2d 1023 (Fed. Cir. 1997). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Nagara teaches and discloses a link signal element provided with such link mark as claimed.

Applicant's cooperation is respectfully requested as to explain Why, an ordinary skill in the art would not call a **mark** provided in a **linking section**, which provides linking, cannot be called a link mark and specifically pointing out how the language of the claim patentably distinguishes them from the references.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm), Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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DAVID L. OMETZ
PRIMARY EXAMINER